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Approved For Release 2003/12/04 : CIA-RDP78B05171A000100010149-4

NPIC/TSSG/DED-1259-68  
2 July 1968

MEMORANDUM FOR THE RECORD

SUBJECT: Monitor Trip [ ]

1. [ ] visited [ ] on 24 and 25 June 1968 to monitor the progress on the High Precision Stereo Comparator Program.

2. On the morning of 24 June 1968, the following personnel visited [ ] for a general briefing: [ ]

3. [ ] gave an hour briefing accompanied by slides on the design, development and capabilities of the instrument. The group next viewed the mockup of the instrument and viewed the clean room area that is under construction to house the instrument during the fabrication and testing phase. The group also viewed a breadboard of the granite slab and stages of one side of the comparator system. The group was also able to inspect the mechanical layout for the laser interferometer system and the positioning for the air bearing lift off and guidance system. The last hour of the visit was taken up by a progress report on the fabrication phase of the program and a question and answer period.

4. On the afternoon of 24 June 1968, [ ] briefed [ ] on the progress of this 92-week program as completed on the 11th week. The work as accomplished by Tasks is as follows:

Task 8 - [ ] wants the optical bridge right away. [ ] has requested that the optical bridge be in their plant by the 19th week but it now looks as if [ ] provides this bridge to [ ] by the 30th week it will be early enough. The optical bridge is now being cast and machined. The [ ] schedule has allowed 62 weeks for the skin to be completed for the bridge and instrument but in fact only 32 weeks will be needed.

Task 43 - Computer Programming - [ ] have met and done some negotiating on this item. [ ] is re-pricing and revising their proposal to reflect that they will do some work in the first 5 months then lay off and work on the instrument when it is fully assembled. [ ] had hoped to do all their work at the end of the program. Under the new plan, [ ] will do some debugging during the first 5 months by simulating and testing on the computer. The 516 computer will be delivered to [ ] in August 1968.

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SUBJECT: Monitor Trip [ ]

Task 32 - Computer Console - This is a minor item and is just about completed.

Task 24 & 25 - Image Analysis - This item is presently being negotiated with [ ] on 17 and 18 June 1968 to discuss this subcontract. [ ] brought in a new proposal that took exception to several points in [ ] plan. [ ] wished to have the acceptance performed at the [ ] plant but [ ] insisted on the final test to be accomplished on the assembled comparator at [ ] There was a meeting of the minds on the test philosophy and [ ] agreed with testing on the assembled instrument. The [ ] people said they would have to go back and work up new costs sheets to reflect this test plan. The original bid by [ ] the light level requirement levied by [ ] raised this to [ ] the bid carried out by [ ] reworking the cost sheets will probably increase the price again. This delay will not hamper the program schedule because the Image Analysis System is not required until the later part of the program.

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Tasks 26, 27, 28 - Cabinets and Racks - These items have been ordered and will be used for storage of chassis until they are required in assembly.

Task 11 - Stage Drives - This item is essentially complete.

Task 10 - Air Bearings - Made and in storage.

Tasks 16, 17, 18 - Optics - This is scheduled for 15 months delivery. Contract has been signed and returned by [ ] The 3-week strike has not seriously hurt the plan. At the 57th week the optical system is to be complete and tested in the vendors plant. [ ] is to visit [ ] on the 22 July 1968 to monitor this contract. [ ] will use [ ] as a consultant on this project. [ ] has a payment plan layed out for milestones and progress. This is based on results and not time.

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Task 21 - Optical Bridge - Underway and should be ahead of schedule. See Task 8 for additional information.

Task 7 - Main Frame - In fabrication and due to be delivered at [ ] in mid July 1968.

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SUBJECT: Monitor Trip [ ]

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Task 35 - Isolation System - Contract let to [ ] Due to be delivered the end of July 1968. There will not be much change in this item due to the proposed slab in [ ] because the main interest is in 1 to 2 cycle vibrations.

Task 9 - Granite Base and Ways - Has been ordered and is due in the 18th week (August).

Task 6 - Facilities - Cleanroom is under construction. The Air Conditioning will be ordered in July. The room must be finished by December 1968 but [ ] expects to have it completed in September. [ ] has made use of an air conditioning consultant, [ ] to make this temporary cleanroom as close to eventual operating environment as possible.

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Task 13 - Platen Assembly - This has been released to the [ ] shop for fabrication. They are trying to get less than 10 or 15 parts per 1,000,000 deviation from flatness. [ ] helped prepare the original specifications but no bid the request for proposals. The platen will be about 1 1/4 inches thickness. [ ] as asked [ ] to reconsider and not worry about the original tight schedule of delivery. [ ] is also exploring the possibility of having a [ ] firm fabricate this item.

Task 18 - Film Drives - This is complete.

Task 20 - Platen Illumination - Due to be delivered in a week. No major problem in this general illumination.

Task 34 - Utilities Cabinets - Have all been ordered but there will be a lot of plumbing work to do on these at [ ]

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Task 23 - Optics Drives - [ ] has ordered the servo motors. [ ] has supplied the standard boards but there are some 60 chassis out to be fabricated. Some 10 to 15% are held up waiting for the final optical drawings from [ ]

Task 37 - RFI Suppression - To be done as they go along. They are mainly worried about cross talk.

Task 14 - Film Cooling - Analytical test have been run at [ ] with Thermositors but this is mainly [ ] job.

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SUBJECT: Monitor Trip [REDACTED]

5. The program is scheduled to be 17% complete at the 11th week and in fact, is 16.2% complete.

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6. The 25th of June was devoted to the environmental requirements for the comparator and the site preparation problems. The following personnel joined [REDACTED] at this meeting:

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[REDACTED]

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[REDACTED] stated that he has requested bids for vibration readings at the newly selected site for the instrument. He said he will check the costs to see if the cost will justify another 5% assurance in knowing the vibrations.

Film Cooling - There will be two complete systems of cooling for each side of the comparator. One for the 40mm objective lens and one for the 80mm lens. This is due to close clearance (3mm) for the high power objective which will require a fishtail orifice while a regular circular orifice will be used on the low power objective. Some problem areas still remain to be solved.

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[REDACTED] will be able to provide just about all the requirements of this instrument. [REDACTED] specifications 11 "Installation Requirements" and 13 "Environmental Requirements" were reviewed and no serious problems seem to exist in these areas. About the only major problem seems to be in properly cooling the components in the optical bridge. [REDACTED] originally asked for 2500 CFM of air for each side of the optical bridge to hold the temperature to less than 1/4°F rise. [REDACTED] now plans to run an enclosed air system through the bridge around the hot spots. This will lower the requirement to 500 CFM for each side and allow a 2 1/2°F temperature rise.

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[REDACTED]

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